



OpticsPRIME 24V Series

TITAN / DEFENDER / REBEL

Channel Letter & Sign Cabinet Lighting



left to right:
REBEL (OTSR-X2-BW65)
DEFENDER (OTSR-M2-BW65)
TITAN (OTSR-L4-BW65)

features

- Revolutionary new high efficacy 24V design for channel letter modules (up to 150 lm/w!)
- Improved wide beam optics with smooth blending beam edges
- Tight binning control for consistent and uniform whites
- 24V system allows for greater total loading (watts) per power supply than 12V system under class 2
- Engineered with top tier LED chips and Bitro's constant current technology
- Multitude of color temperature options, with custom colors available by request. Red, green, blue available as well.
- TITAN and DEFENDER include Bitro's unique mounting bumps for snap-in construction to PrimeTRACK, PRIME series' equivalent to ProTRACK retrofit bars (coming soon)
- Backed by 5-year warranty

overview

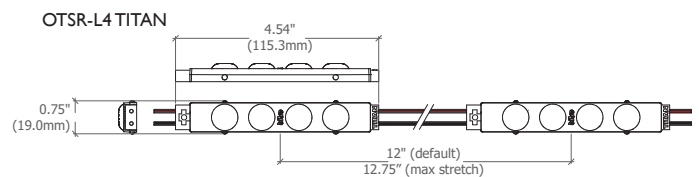
Bitro's new generation OpticsPRIME has upgraded to 24V! The revolutionary new 24V design for channel letter modules allows for previously unseen 150 lm/w efficacy in a CLM.

Higher brightness output per module allows sign installers to maximize the module's high angle beam optics to truly achieve excellent uniformity AND uncompromised brightness on face, using fewer total modules and power supplies.

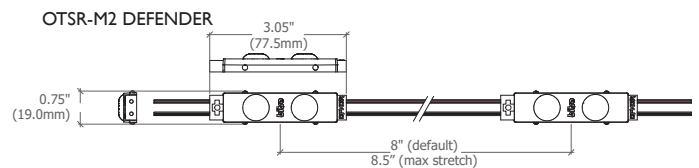
Designed with all of Bitro's core CLM technologies such as constant current circuitry, IP67 construction, and top-tier LED chips, the new OpticsPRIME is an ultra-versatile and robust module for any application.

OpticsPRIME comes in three sizes, corresponding to three different brightness levels to match the requirements of each individual job.

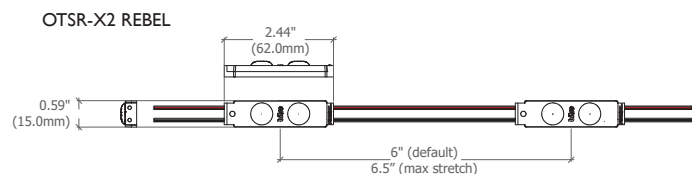
models & dimension



4-bulb, Large body, 1 modules per ft



2-bulb, Medium body, 1.5 modules per ft



2-bulb, Small body, 2 modules per ft





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specifications

| Item | Series Name | OpticsPRIME 24V Series | | | |
|---------------------------|---|--|---|--|-----------------------------|
| Model | Model Name | TITAN | DEFENDER | REBEL | |
| | Model # | OTSR-L4 | OTSR-M2 | OTSR-X2 | |
| | Intended Applications | Standard Channel Letters, Sign Cabinets | | | |
| | Beam Angle | 165° | | | |
| | Module Body Size | Large | Medium | Small | |
| | Physical Dimensions | 4.54" x 0.75" x 0.41" (115.3mm x 19.0mm x 10.5mm) | 3.05" x 0.75" x 0.41" (77.5mm x 19.0mm x 10.5mm) | 2.44" x 0.59" x 0.35" (62.0mm x 15.0mm x 8.9mm) | |
| | # LED Bulbs per Module | 4 lamps | | | |
| | Module Spacing | (Default) | 1 mods/ft (12" on-center) | 1.5 mods/ft (8" on-center) | 2 mods/ft (6" on-center) |
| (Max Stretch) | | 0.94 mods/ft (12.75" on-center) | 1.41 mods/ft (8.5" on-center) | 1.85 mods/ft (6.5" on-center) | |
| Brightness | Lumens ¹ | 352 lm/mod | 179 lm/mod | 89 lm/mod | |
| | Lumen Efficacy ¹ | 352 lm/ft | 268.5 lm/ft | 178 lm/ft | |
| Electrical | Operating Voltage | 24VDC | | | |
| | Power Consumption | per module | 2.4 w/mod | 1.2 w/mod | 0.6 w/mod |
| | | per ft ² | 2.4 w/ft | 1.8 w/ft | 1.2 w/ft |
| | Recommended Load per Class 2 Power Supply | # Modules | 34 mods | 68 mods | 136 mods |
| Colors, SKUs | Color ³ | CCT | SKUs | | |
| | Bright White | 6500K | OTSR-L4-BW65 | OTSR-M2-BW65 | OTSR-X2-BW65 |
| | Day White | 5000K | OTSR-L4-DW50 | OTSR-M2-DW50 | OTSR-X2-DW50 |
| | Soft White | 4000K | - | - | OTSR-X2-SW40 |
| | Warm White | 3000K | OTSR-L4-WW30 | OTSR-M2-WW30 | OTSR-X2-WW30 |
| Operating Specs & Ratings | Operating Temperature | -30°C ~ 70°C / -22°F ~ 158°F | | | |
| | Housing | Modified PVC housing, Polycarbonate Lens | | | |
| | Wire | -18AWG, 1007, UL Approved | | | |
| | Waterproof Rating | IP67, UL approved for Dry, and Damp locations | | | |
| | Application Method | 3M double-sided tape, mounting hole for double-sided fastening (#7 screw max dia.) | | | |
| | Warranty | 5-Year Warranty | | | |
| | Certifications | UL Recognized (SAM) for US & Canada, CSA | | | |
| | UL File # / Ref. # | BT-CLM "Channel Letter Modules" E341583 for cRUUs, E487861 for Retrofit UL | | | |
| | CSA File # / Ref. # | 258485, "BT-CLM" | | | |
| CE Ref. # | "BT-CLM" | | | | |
| Ordering & Packaging | # mods / Tray | 30 mods / tray | 45 mods / tray | 50 mods / tray | |

revised: 08/09/2019

¹ Lumen values based on 6500K Bright White model

² Per ft specs based on default spacing (not maximum stretch)

³ Contact Bitro for other color temperature options. Red, Green, Blue colors modules also available.

layout service

Please email estimate@bitrogroup.com
For prompt layout services, provided scaled & detail drawings.

contact bitro

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